STATEMENT FROM THE TWENTY FIRST GREATER HORN OF AFRICA CLIMATE OUTLOOK FORUM (GHACOF 21) 27 TO 29 FEBRUARY 2008, ENTEBBE, UGANDA

Summary

The regional consensus climate outlook indicate increased likelihood of near-normal to below normal rainfall over much of the Greater Horn of Africa (GHA) during the March to May 2008 season. However near-normal to above-normal rainfall is likely to occur over southwestern and eastern Sudan; western Ethiopia; much of Uganda; southwestern Kenya; extreme southern Burundi as well as northern, western and southwestern Tanzania while climatology is indicated over northern and central Sudan; Eritrea; Djibouti; northern Ethiopia and extreme northern Somalia. This outlook is provided for the period when La Niña impacts will be dominating the global climate system. The regional climate systems especially those associated with Atlantic and Indian Oceans are expected to modulate the influence of La Niña on the GHA climate. It should be noted that episodic wet spells and flash floods could occur even in areas with a likelihood of near to below-normal rainfall.

The outlook is relevant only for seasonal time scales and relatively large areas. Local and month-to-month variations may occur. Forecast updates for the GHA sub-region are provided by ICPAC and the respective National Meteorological and Hydrological Services. The users are therefore strongly advised to contact their National Meteorological Services for interpretation of this outlook, finer details, regular updates and additional guidance.

The Climate Outlook Forum

From 27 to 29 February 2008, the Twenty First Greater Horn of Africa Climate Outlook Forum (GHACOF 21) was convened in Entebbe, Uganda by ICPAC to formulate consensus guidance for the March to May 2008 rainfall season over the GHA sub region comprising of Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Rwanda, Somalia, Sudan, Tanzania and Uganda. Users from health, disaster risk management, food security, water resources, conflict early warning and media sectors as well as Non Governmental Organisations and development partners among others were active participants in the forum. They participated in the formulation of the potential impacts of the climate outlook on their respective countries and sectors. The forum reviewed the state of the global climate system and its implications for the sub-region. Among the principal factors considered included the continuing La Niña over equatorial Pacific Ocean as well as the observed sea surface temperatures (SSTs) in the tropical Atlantic and Indian Oceans.

Methodology

The forum examined the prevailing and expected SST anomalies over the Pacific, Indian and Atlantic Oceans as well as other factors that affect the climate of the GHA sub-region. These factors were assessed using ocean-atmosphere models, statistical models and expert interpretation. The current status of seasonal to inter-annual forecasting allows prediction of large spatial and temporal averages and may not fully account for all the physical and dynamical factors that influence regional and national climate variability.

The experts established probability distributions to indicate the likelihood of above-, near-, or below-normal rainfall for each zone (see figure 1). Above-normal rainfall is defined as within the wettest third of long term recorded rainfall amounts in each zone; near-normal is defined as the third of the recorded rainfall amounts centred around the climatological median; below-normal

rainfall as within the driest third of the recorded rainfall amounts. Climatology refers to a situation where any of the three categories have equal chances of occurring.

Rainfall Outlook

March to May constitutes an important rainfall season over the equatorial parts of the Greater Horn of Africa (GHA) sub-region. The rainfall outlook for various zones within the sub-region is given below.

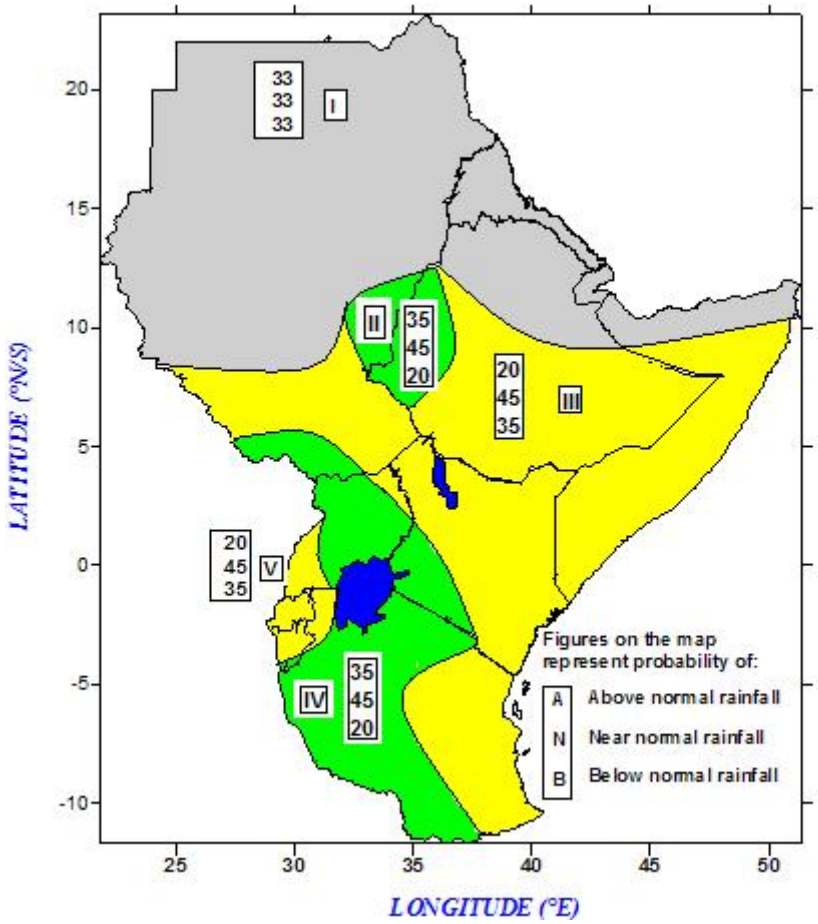

Figure 1: Greater Horn of Africa Consensus Climate Outlook for the March to May 2008

Zone I: Climatology is indicated over northern and central Sudan; Eritrea; Djibouti; northern Ethiopia and extreme northern Somalia.

Zone II: Increased likelihood of near-normal to above normal rainfall over eastern Sudan and western Ethiopia.

Zone III: Increased likelihood of near-normal to below-normal rainfall over much of Somalia as eastern, central and southern Ethiopia as well as much of Kenya and southern Sudan.

Zone IV: Increased likelihood of near-normal to above-normal rainfall over southwestern, western and northern Tanzania; extreme southern Burundi; southwestern Kenya; eastern, central and northwestern Uganda as well as southwestern Sudan.

Zone V: Increased likelihood of near-normal to below-normal rainfall over southwestern Uganda; Rwanda; much of Burundi and northwestern Tanzania

Note:

The numbers for each zone indicate the probabilities of rainfall in each of the three categories, above-, near-, and below-normal. The top number indicates the probability of rainfall occurring in the above-normal category; the middle number is for near-normal and the bottom number for the below-normal category. For example, in case of eastern Sudan and western Ethiopia (zone II), there is 35% probability of rainfall occurring in the above-normal category; 45% probability of rainfall occurring in the near-normal category; and 20% probability of rainfall occurring in the below-normal category. It is emphasised that boundaries between zones should be considered as transition areas.

Contributors

The Twenty First GHA Climate Outlook Forum (GHACOF 21) was organised jointly by the IGAD Climate Prediction and Applications Centre (ICPAC); National Meteorological and Hydrological Services (NMHSs); the World Meteorological Organisation (WMO) and the International Research Institute for climate and society (IRI).

Contributors to this regional consensus climate outlook included representatives of the Meteorological Services from ten GHA countries (Insititut Geographique du Burundi; Meteorologie Nationale de Djibouti; National Meteorological Services Agency of Ethiopia; Kenya Meteorological Department; Rwanda Meteorological Services; Sudan Meteorological Authority; Tanzania Meteorological Agency and Uganda Department of Meteorology) and climate scientists as well as other experts from national, regional and international institutions and organisations (IGAD Climate Prediction and Applications Centre (ICPAC); Southern Africa Development Community/Drought Monitoring Centre (SADC/DMC); International Research Institute for climate and society (IRI); World Meteorological Organisation (WMO); USGS/FEWS-NET and University of Nairobi. Additional input was supplied by the National Centres for Environmental Prediction/Climate Prediction Centre (NCEP/CPC); United Kingdom Met Office; European Centre for Medium Range Weather Forecasts (ECMRWF) and ACMAD.